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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
LLP  
1300 I STREET, NW  
WASHINGTON, DC 20005

EXAMINER

VOELTZ, EMANUEL T

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 03/19/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/819,658

Applicant(s)

CLEMENS ET AL.

Examiner

Emanuel T. Voeltz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 3/29/01, 5/31/01 and 9/13/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-18, 20-27, 30-37, 40-43, 46-49 and 52 is/are rejected.
- 7) ☒ Claim(s) 9, 10, 19, 28, 29, 38, 39, 44, 45, 50 and 51 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
EMANUEL TODD VOELTZ  
PRIMARY EXAMINER

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date No. 5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.



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## Examiner's Detailed Office Action

1. This action is in response to patent application number 09/819,658, file March 29, 2001.
2. Claims 1-52 have been examined.

### Preliminary Amendment

3. The preliminary amendment filed on May 31, 2001 has been fully considered in the preparation of this office action.

### Information Disclosure Statement

4. The information disclosure statement filed on September 13, 2002 has been fully considered in the preparation of this office action (see copy of PTOL-1449).

### Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. The claims of the instant application as presently claimed and best understood were considered in light of the "Examination Guidelines for Computer-Related Inventions" and were found to be non-statutory.
7. Discussion of the analysis of the claims under the guidelines follows:

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8. With regard to claims 1-15 and 35-40, the specification has been reviewed to see if the disclosed invention is in the technological arts and that it has a practical use in the art. The review shows that the invention appears to be a series of steps performed on a computer, however, claims 1-15 and 35-40 fail to recite/define a series of steps performed on a computer. Thus, the claims are not directed to an invention within the technological arts and are deemed to be non-statutory. Furthermore, while claims 16-34 and 41-52 recite an apparatus and/or computer readable medium, claims 1-15 and 35-40 do not. In view of the recitation of apparatus in claims 16-19 and 41-46, it is clear that claims 1-15 and 35-40 are intended to be directed to the abstract method apart from the apparatus for performing the method. Therefore, the claims are non-statutory because they are directed solely to an abstract idea without practical application in the technological arts.

### Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 1-8, 11-18, 20-27, 30-37, 40-43, 46-49 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of the Business Wire article entitled "New Rapid Planning Matrix Function in the SAP Automotive Solution Exceeds Performance Tests for High-Volume Manufacturing Requirements of DaimlerChrysler" and U.S. Patent No. 6,192,370 B1, issued to Primsch (SAP Aktiengesellschaft).

Regarding claim 1,

A method of generating an order matrix, the method comprising: receiving an order comprising one or more tokens out of a set of possible tokens, wherein a token is a combination of a characteristic and a value of the characteristic (see article pgs 1 and 2 with respect to Rapid Planning Matrix (RPM)); and placing the order in an order matrix, wherein the order matrix is at least a two dimensional data structure, each row of the data structure representing a possible token and each column of the data structure representing an order (see figure 19, column 11, lines 28-41 in the '370 patent).

The article sets forth the foundation of Rapid Planning Matrix for providing an enterprise solution in the automotive industry, namely manufacturing custom ordered automobiles. The

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article is silent with respect to any detail about the RPM. However, the '370 patent teaches in figure 19 an order matrix. However, the matrix is shown in a transposed manner to which applicant claims his invention, namely the disposition of the rows and columns for the order and attributes. In light of the fact that the two references are from the same assignee, namely SAP and further they are ultimately coming to the same conclusion as to the RPM and a complete set of Bill of Materials (BOM) for a custom ordered automobile, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the matrix as set forth in the '370 patent to be that as claimed in instant application because the same desired results will occur no matter if the rows and columns of the matrix are transposed with one another.

Regarding claim 2,

The method of claim 1 wherein each entry in the order matrix is a single logical bit. (This would be an inherent characteristic of the overall matrix as set forth in figure 19 as applied in any computer system).

Regarding claim 3,

The method of claim 1, further comprising inserting a new row into the order matrix, wherein the new row represents a new possible token, such that a new token can be introduced into a pre-existing order matrix. (see figure 19, column 11, lines 28-41 of the '370 patent).

Regarding claim 4,

The method of claim 1, further comprising storing the order matrix in an object-oriented fashion. (see figure 19, column 11, lines 28-41 of the '370 patent).

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Regarding claim 5,

A method of rescheduling a production period for a plurality of orders, the method comprising: receiving a plurality of orders comprising one or more tokens out of a set of possible tokens, wherein a token is a combination of a characteristic and a value of the characteristic; generating an order restriction matrix for the orders, wherein the order restriction matrix is at least a two dimensional data structure, each row of the data structure representing a possible restriction and each column of the data structure representing an order; determining the restrictions that apply to the orders; and applying the restrictions to a production restriction matrix to determine potential production periods for the orders. (see article pgs 1 and 2 with respect to Rapid Planning Matrix (RPM)).

The article sets forth the foundation of Rapid Planning Matrix for providing an enterprise solution in the automotive industry, namely manufacturing custom ordered automobiles and adjusting to any changes in the custom order with respect to production time. The article is silent with respect to any detail about the RPM. However, the '370 patent teaches in figure 19 an order matrix. However, the matrix is shown in a transposed manner to which applicant claims his invention, namely the disposition of the rows and columns for the order and attributes. In light of the fact that the two references are ultimately coming to the same conclusion as to the RPM and a complete set of Bill of Materials (BOM) for a custom ordered automobile along with any changes to the custom order, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the matrix as set forth in the '370 patent to be that as claimed in instant application because the same desired results will occur no matter if the rows and columns

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of the matrix are transposed with one another and further that any changes to the custom order would thus yield a different production time.

Regarding claim 6,

The method of claim 5, wherein generating an order restriction matrix further comprises logically evaluating the associated function for each possible restriction. (see Rapid Planning Matrix (RPM)).

Regarding claim 7,

The method of claim 5, wherein determining the restrictions that apply to the orders comprises analyzing the order restriction matrix column of the orders for all restrictions that are logically true. (see Rapid Planning Matrix (RPM) and SAP Business Solution).

Regarding claim 8,

The method of claim 5, wherein applying the restrictions to a production restriction matrix to determine potential production periods for the orders comprises: generating an order derived production restriction matrix from the production restriction matrix, the production restriction matrix being at least a two dimensional data structure, rows of the data structure representing a possible restriction and columns of the data structure representing a production period, the generation comprising: for each restriction of an order, identifying the appropriate row of the production restriction matrix to include in the order derived production restriction matrix; and evaluating the order derived production restriction matrix to determine potential periods for production. (see Rapid Planning Matrix (RPM) and SAP Business Solution).

Regarding claim 11,



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The method of claim 5, further comprising the stage of decrementing the production restriction matrix when a production period is chosen. (This would be an inherent characteristic of the overall matrix as set forth in figure 19 as applied in any computer system).

Regarding claim 12,

A method of generating a bill of materials for a production run, the method comprising: receiving a plurality of orders comprising one or more tokens out of a set of possible tokens, wherein a token is a combination of a characteristic and a value of the characteristic; placing the orders in an order matrix, wherein the order matrix is at least a two dimensional data structure, each row of the data structure representing a possible token and each column of the data structure representing an order; and generating a bill of materials matrix by evaluating the order matrix, wherein the bill of materials matrix is at least a two dimensional data structure, each row of the data structure representing a possible item and each column of the data structure representing an order. (see article pgs 1 and 2 with respect to Rapid Planning Matrix (RPM))

The article sets forth the foundation of Rapid Planning Matrix for providing an enterprise solution in the automotive industry, namely manufacturing custom ordered automobiles and adjusting to any changes in the custom order with respect to production time. The article is silent with respect to any detail about the RPM. However, the '370 patent teaches in figure 19 an order matrix. However, the matrix is shown in a transposed manner to which applicant claims his invention, namely the disposition of the rows and columns for the order and attributes. In light of the fact that the two references are ultimately coming to the same conclusion as to the RPM and a complete set of Bill of Materials (BOM) for a custom ordered automobile along with any changes to the custom order, it would have been obvious to one of ordinary skill in the art at the

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time of the invention to modify the matrix as set forth in the '370 patent to be that as claimed in instant application because the same desired results will occur no matter if the rows and columns of the matrix are transposed with one another and further that any changes to the custom order would thus yield a different production time.

Regarding claim 13,

The method of claim 12, wherein generating the bill of materials matrix further comprises: for each item vector, each item vector having an associated evaluation function, performing the evaluation function on the token parameters from the order matrix; and placing the result of the evaluation in the item vector of the bill of materials matrix. (see Rapid Planning Matrix (RPM) and SAP Business Solution).

Regarding claim 14,

The method of claim 12, further comprising the stage of analyzing the bill of materials matrix to determine supply requirements. (see Rapid Planning Matrix (RPM) and SAP Business Solution).

Regarding claim 15,

The method of claim 12, further comprising the stage of decrementing an inventory database as each order is processed based on the items in the bill of materials matrix. (see Rapid Planning Matrix (RPM) and SAP Business Solution).

Regarding claim 16,

A computer for generating an order matrix, comprising: a processor; and a memory storage device coupled to the processor; (see figure 3 of the '370 patent) the processor being operative to: receive an order comprising one or more tokens out of a set of possible tokens,

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wherein a token is a combination of a characteristic and a value of the characteristic; place the order in an order matrix, wherein the order matrix is at least a two dimensional data structure, each row of the data structure representing a possible token and each column of the data structure representing an order. (see article pgs 1 and 2 with respect to Rapid Planning Matrix (RPM)).

The article sets forth the foundation of Rapid Planning Matrix for providing an enterprise solution in the automotive industry, namely manufacturing custom ordered automobiles. The article is silent with respect to any detail about the RPM. However, the '370 patent teaches in figure 19 an order matrix. However, the matrix is shown in a transposed manner to which applicant claims his invention, namely the disposition of the rows and columns for the order and attributes. In light of the fact that the two references are ultimately coming to the same conclusion as to the RPM and a complete set of Bill of Material (BOM) for a custom ordered automobile, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the matrix as set forth in the '370 patent to be that as claimed in instant application because the same desired results will occur no matter if the rows and columns of the matrix are transposed with one another.

Regarding claim 17,

A computer for rescheduling a production period for orders, comprising: a processor; and a memory storage device coupled to the processor; (see figure 3 of the '370 patent) the processor being operative to: receive orders comprising one or more tokens out of a set of possible tokens, wherein a token is a combination of a characteristic and a value of the characteristic; generate an order restriction matrix for the orders, wherein the order restriction matrix is at least a two dimensional data structure, each row of the data structure representing a

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possible restriction and each column of the data structure representing an order; determine the restrictions that apply to the orders; and apply the restrictions to a production restriction matrix to determine potential production periods for the orders. (see Rapid Planning Matrix (RPM) and SAP Business Solution).

The article sets forth the foundation of Rapid Planning Matrix for providing an enterprise solution in the automotive industry, namely manufacturing custom ordered automobiles and adjusting to any changes in the custom order with respect to production time. The article is silent with respect to any detail about the RPM. However, the '370 patent teaches in figure 19 an order matrix. However, the matrix is shown in a transposed manner to which applicant claims his invention, namely the disposition of the rows and columns for the order and attributes. In light of the fact that the two references are ultimately coming to the same conclusion as to the RPM and a complete set of Bill of Materials (BOM) for a custom ordered automobile along with any changes to the custom order, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the matrix as set forth in the '370 patent to be that as claimed in instant application because the same desired results will occur no matter if the rows and columns of the matrix are transposed with one another and further that any changes to the custom order would thus yield a different production time.

Regarding claim 18,

A computer for generating a bill of materials, comprising: a processor; and a memory storage device coupled to the processor; (see figure 3 of the '370 patent) the processor being operative to: receive a plurality of order comprising one or more tokens out of a set of possible tokens, wherein a token is a combination of a characteristic and a value of the characteristic;

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place the orders in an order matrix, wherein the order matrix is at least a two dimensional data structure, each row of the data structure representing a possible token and each column of the data structure representing an order; and generate a bill of materials matrix by evaluating the order matrix, wherein the bill of materials matrix is at least a two dimensional data structure, each row of the data structure representing a possible item and each column of the data structure representing an order.

The article sets forth the foundation of Rapid Planning Matrix for providing an enterprise solution in the automotive industry, namely manufacturing custom ordered automobiles. The article is silent with respect to any detail about the RPM. However, the '370 patent teaches in figure 19 an order matrix. However, the matrix is shown in a transposed manner to which applicant claims his invention, namely the disposition of the rows and columns for the order and attributes. In light of the fact that the two references are ultimately coming to the same conclusion as to the RPM and a complete set of Bill of Materials (BOM) for a custom ordered automobile, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the matrix as set forth in the '370 patent to be that as claimed in instant application because the same desired results will occur no matter if the rows and columns of the matrix are transposed with one another.

Regarding claim 20,

A computer-readable medium containing instructions for generating an order matrix, the instructions comprising: receiving an order comprising one or more tokens out of a set of possible tokens, wherein a token is a combination of a characteristic and a value of the characteristic; and placing the order in an order matrix, wherein the order matrix is at least a two

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dimensional data structure, each row of the data structure representing a possible token and each column of the data structure representing an order. (see the rejection to claims 1-18 above, wherein the difference being the scope of the claims being a computer-readable medium rather than a method and/or computer apparatus. One of ordinary skill in the art would have found it obvious to provide the necessary methodology steps onto a computer-readable medium for the purpose of operating a computer system in a manufacturing environment to achieve the desired results).

Regarding claim 21,

The computer-readable medium of claim 20, wherein each entry in the order matrix is a single logical bit. (see the rejection to claims 1-18 above).

Regarding claim 22,

The computer-readable medium of claim 20, further comprising the stage of inserting a new row into the order matrix, wherein the new row represents a new possible token, such that a new token can be introduced into a pre-existing order matrix. (see the rejection to claims 1-18 above).

Regarding claim 23,

The computer-readable medium of claim 20, further comprising the stage of storing the order matrix in an object-oriented fashion. (see the rejection to claims 1-18 above).

Regarding claim 24,

A computer-readable medium containing instructions for determining a production period for an order, the instructions comprising: receiving a plurality of orders comprising one or more tokens out of a set of possible tokens, wherein a token is a combination of a characteristic and a

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value of the characteristic; generating an order restriction matrix for the orders, wherein the order restriction matrix is at least a two dimensional data structure, each row of the data structure representing a possible restriction and each column of the data structure representing an order; determining the restrictions that apply to the orders; and applying the restrictions to a production restriction matrix to determine potential production periods for the orders. (see the rejection to claims 1-18 above, wherein the difference being the scope of the claims being a computer-readable medium rather than a method and/or computer apparatus. One of ordinary skill in the art would have found it obvious to provide the necessary methodology steps onto a computer-readable medium for the purpose of operating a computer system in a manufacturing environment to achieve the desired results).

Regarding claim 25,

The computer-readable medium of claim 24, wherein generating an order restriction matrix further comprises logically evaluating the associated function for each possible restriction. (see the rejection to claims 1-18 above).

Regarding claim 26,

The computer-readable medium of claim 24, wherein determining the restrictions that apply to the order comprises analyzing the order restriction matrix column of the order for all restrictions that are logically true. (see the rejection to claims 1-18 above).

Regarding claim 27,

The computer-readable medium of claim 24, wherein deriving an order derived production restriction matrix for the order comprises: generating an order derived production restriction matrix from the production restriction matrix, the production restriction matrix being

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at least a two dimensional data structure, rows of the data structure representing a possible restriction and columns of the data structure representing a production period, by the stages of: for each restriction of an order, identifying the appropriate row of the production restriction matrix to include in the order derived production restriction matrix; and evaluating the order derived production restriction matrix to determine potential periods for production. (see the rejection to claims 1-18 above).

Regarding claim 30,

The computer-readable medium of claim 24, further comprising the stage of decrementing the production restriction matrix when a production period is chosen. (see the rejection to claims 1-18 above).

Regarding claim 31,

A computer-readable medium containing instructions for generating a bill of materials for a production run, the instructions comprising: receiving a plurality of orders comprising one or more tokens out of a set of possible tokens, wherein a token is a combination of a characteristic and a value of the characteristic; placing the orders in an order matrix, wherein the order matrix is at least a two dimensional data structure, each row of the data structure representing a possible token and each column of the data structure representing an order; and generating a bill of materials matrix by evaluating the order matrix, wherein the bill of materials matrix is at least a two dimensional data structure, each row of the data structure representing a possible item and each column of the data structure representing an order. (see the rejection to claims 1-18 above, wherein the difference being the scope of the claims being a computer-readable medium rather than a method and/or computer apparatus. One of ordinary skill in the art would have found it



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obvious to provide the necessary methodology steps onto a computer-readable medium for the purpose of operating a computer system in a manufacturing environment to achieve the desired results).

Regarding claim 32,

The computer-readable medium of claim 31, wherein generating the bill of materials matrix further comprises: for each item vector wherein each item vector has an associated evaluation function that evaluates token parameters, performing the evaluation function on the token parameters from the order matrix; and placing the result of the evaluation in the item vector of the bill of materials matrix. (see the rejection to claims 1-18 above).

Regarding claim 33,

The computer-readable medium of claim 31, further comprising analyzing the bill of materials matrix to determine supply requirements. (see the rejection to claims 1-18 above).

Regarding claim 34,

The computer-readable medium of claim 31, further comprising decrementing an inventory database as each order is processed based on the items in the bill of materials matrix. (see the rejection to claims 1-18 above).

Regarding claim 35,

A method of scheduling a production period for an order, the method comprising: receiving an order comprising one or more tokens out of a set of possible tokens, wherein a token is a combination of a characteristic and a value of the characteristic; determining the restrictions that apply to the order; and applying the restrictions to a production restriction

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matrix to determine potential production periods for the order. (see the rejection to claims 1-18 above).

Regarding claim 36,

The method of claim 35, wherein determining the restrictions that apply to the order comprises evaluating a selection criteria function with the one or more tokens as parameters for each respective restriction (see the rejection to claims 1-18 above).

Regarding claim 37,

The method of claim 35, wherein applying the restrictions to a production restriction matrix to determine potential production periods for the orders comprises: generating an order derived production restriction matrix from the production restriction matrix, the production restriction matrix being at least a two dimensional data structure, rows of the data structure representing a possible restriction and columns of the data structure representing a production period, by: for each restriction of an order, identifying the appropriate row of the production restriction matrix to include in the order derived production restriction matrix; and evaluating the order derived production restriction matrix to determine potential periods for production. (see the rejection to claims 1-18 above).

Regarding claim 40,

The method of claim 35, further comprising the stage of decrementing the production restriction matrix when a production period is chosen. (see the rejection to claims 1-18 above).

Regarding claim 41,

A computer for scheduling an order, comprising: a processor; and a memory storage device coupled to the processor; the processor being operative to: receive an order comprising

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one or more tokens out of a set of possible tokens, wherein a token is a combination of a characteristic and a value of the characteristic; determine the restrictions that apply to the order; and apply the restrictions to a production restriction matrix to determine potential production periods for the order. (see the rejection to claims 1-18 above).

Regarding claim 42,

The computer of claim 41, wherein the processor is further operative to evaluate a selection criteria function with the one or more tokens as parameters for each respective restriction. (see the rejection to claims 1-18 above).

Regarding claim 43,

The computer of claim 41, wherein the processor is further operative to: generating an order derived production restriction matrix from the production restriction matrix, the production restriction matrix being at least a two dimensional data structure, rows of the data structure representing a possible restriction and columns of the data structure representing a production period, the generation comprising: for each restriction of an order, identifying the appropriate row of the production restriction matrix to include in the order derived production restriction matrix; and evaluating the order derived production restriction matrix to determine potential periods for production. (see the rejection to claims 1-18 above).

Regarding claim 46,

The computer of claim 41, wherein the processor is further operative to decrement the production restriction matrix when a production period is chosen. (see the rejection to claims 1-18 above).

Regarding claim 47,

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A computer-readable medium containing instructions for scheduling an order, the instructions comprising: receiving an order comprising one or more tokens out of a set of possible tokens, wherein a token is a combination of a characteristic and a value of the characteristic; determining the restrictions that apply to the order; and applying the restrictions to a production restriction matrix to determine potential production periods for the order. (see the rejection to claims 1-18 above, wherein the difference being the scope of the claims being a computer-readable medium rather than a method and/or computer apparatus. One of ordinary skill in the art would have found it obvious to provide the necessary methodology steps onto a computer-readable medium for the purpose of operating a computer system in a manufacturing environment to achieve the desired results).

Regarding claim 48,

The computer-readable medium of claim 47, wherein the instruction for determining the restrictions that apply to the order comprises the instruction of evaluating a selection criteria function with the one or more tokens as parameters for each respective restriction. (see the rejection to claims 1-18 above).

Regarding claim 49,

The computer-readable medium of claim 47, wherein the instruction for applying the restrictions to a production restriction matrix to determine potential production periods for the orders comprises the instruction of: generating an order derived production restriction matrix from the production restriction matrix, the production restriction matrix being at least a two dimensional data structure, rows of the data structure representing a possible restriction and columns of the data structure representing a production period, by: for each restriction of an

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order, identifying the appropriate row of the production restriction matrix to include in the order derived production restriction matrix; and evaluating the order derived production restriction matrix to determine potential periods for production. (see the rejection to claims 1-18 above).

Regarding claim 52,

The computer-readable medium of claim 47, further comprising the instruction of decrementing the production restriction matrix when a production period is chosen. (see the rejection to claims 1-18 above).

### Allowable Subject Matter

Claims 9, 10, 19, 28, 29, 38, 39, 44, 45 50 and 51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to disclose or teach the specifics on the evaluation of the matrix components (ANDing, etc.) as set forth in the above mentioned claims.

### Prior Art of Record

The following references have been cited for the general nature in manufacturing that incorporate supply chain management techniques.

U.S. Patent No. 4,827,423, Beasley et al.;  
U.S. Patent No. 5,369,570, Parad;  
U.S. Patent No. 6,151,582, Huang et al.;  
U.S. Patent No. 6,192,370B1, Primsch;  
U.S. Patent No. 6,223,094B1, Muehleck et al.;  
U.S. Patent No. 6,272,389B1, Dietrich;  
U.S. Patent No. 6,338,097B1, Krenzke et al.;  
U.S. Patent No. 6,434,443B1, Lin;  
U.S. Patent No. 6,477,660B1, Söhner;

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“SAP Delivers SAP APO, Cornerstone of Synchronized Planning and Execution Components of Supply Chain Management Solution; New Components Extend Supply Chain Capabilities”, Business Wire;  
“New Rapid Planning Matrix Function in the SAP Automotive Solution Exceeds Performance Tests for High-Volume Manufacturing Requirements of DaimlerChrysler”, Business Wire;  
“mySAP.com Automotive Puts the New BMW X5 Sport Utility Vehicle On the Road; BMW Benefits From One-Month Implementation of mySAP.com Automotive”, Business Wire.

### Correspondence Information

3. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Emanuel Todd Voeltz** who may be reached via telephone at **(703) 305-4563**. The examiner can normally be reached Monday through Friday between the hours of 8:00 a.m. and 5:00 p.m. eastern standard time.

If you need to send an Official facsimile transmission, please send it to **(703) 872-9306**.

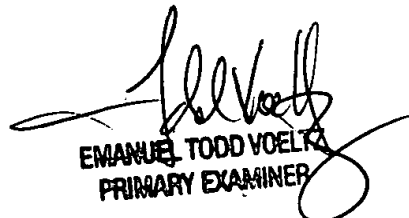
If you would like to send a Non-Official (draft) facsimile transmission the fax is **(703) 746-5104**.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, **Anil Khatri**, may be reached at **(703) 305-0282**.

Any response to this office action should be mailed too: **Director of Patents and Trademarks Washington, D.C. 20231**.

Moreover, hand-delivered responses should be delivered to the Receptionist, located on the **fourth floor of Crystal Park 11, 2121 Crystal Drive Arlington, Virginia**.

*Emanuel Todd Voeltz*  
Primary Patent Examiner  
Art Unit 2121

  
**EMANUEL TODD VOELTZ**  
**PRIMARY EXAMINER**

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